

Scaled data based on original data using  
LM-79-08 Approved Method: Electrical and Photometric Measurements of Solid-  
State Lighting Products

Test Report Prepared for  
Cooper Lighting Solutions  
(formerly Eaton)

Brand: McGRAW-EDISON

Report Number: P453607

Luminaire Tested: **GALN-SA4C-827-U-T3R**

Issue Date: 1/4/2021

**Test Information**

Test Method: LM-79-08  
Report Number: P453607  
TEST IS SCALED FROM IESNA LM-79-08 TEST DATA (G3-2011-042-8)  
Test Lab: INNOVATION CENTER  
Issue Date: 1/4/2021  
Manufacturer: COOPER LIGHTING SOLUTIONS (FORMERLY EATON)  
Product Line: MCGRAW-EDISON  
Catalog Number: GALN-SA4C-827-U-T3R  
Description: GALLEON AREA AND ROADWAY LUMINAIRE  
(4) 80 CRI, 2700K, 1050mA LIGHTSQUARES WITH 16 LEDS EACH AND TYPE III  
ROADWAY OPTICS  
Light Source: -  
Ballast/Driver: ELECTRONIC DRIVER

**Summary**

Lumens per Lamp: N/A  
Luminaire Lumens: 20922 lumens  
Efficiency: N/A  
Efficacy: 98.2 lumens/watt  
Luminous Opening: Rectangular (W 1' x L: 1' x H: 0')  
IES Classification: Type IV - Medium  
BUG Rating: B3 - U0 - G4

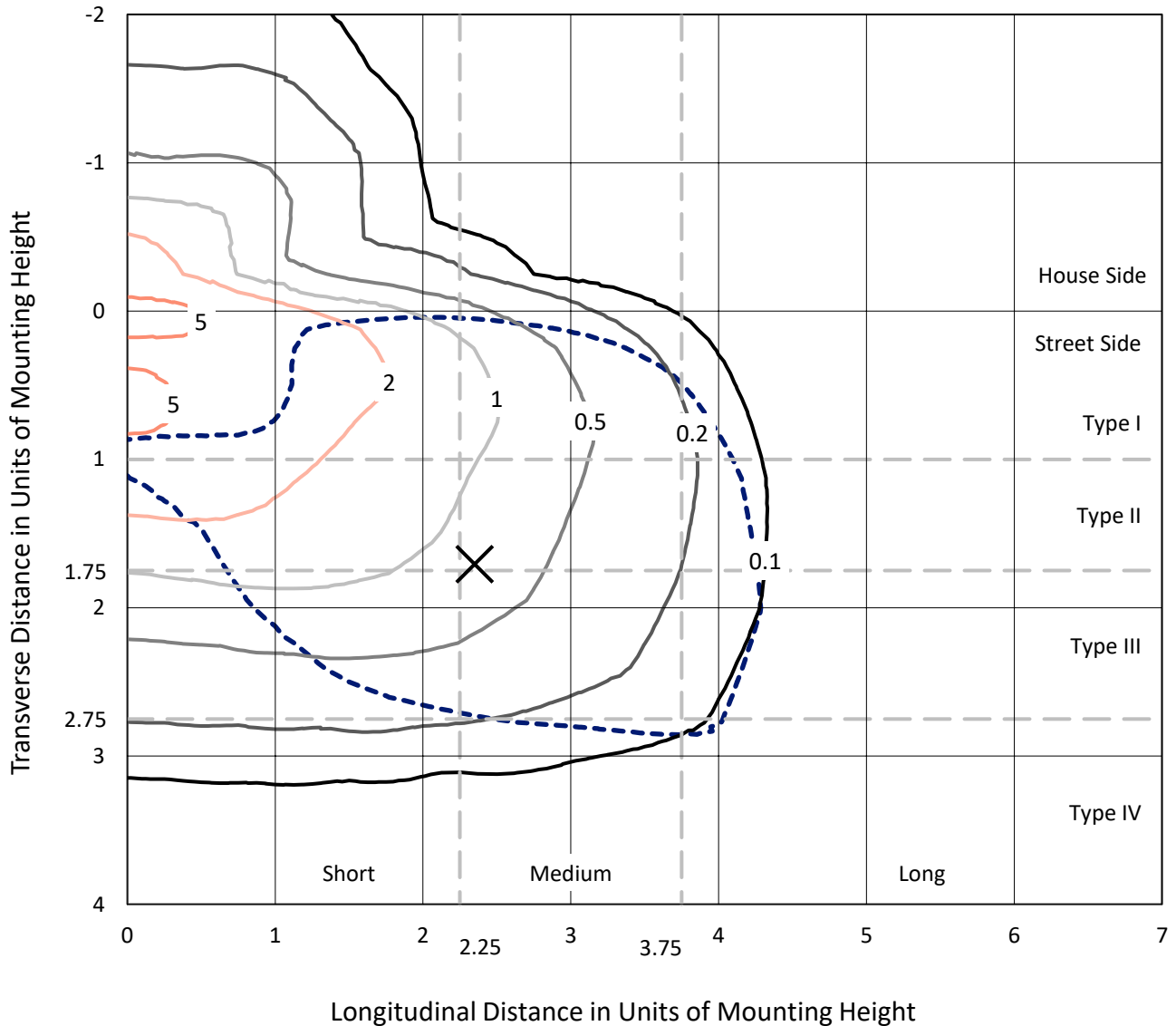
Input Watts (W): 213  
Input Voltage (V): NR  
Input Current (A<sub>in</sub>): NR  
Voltage Rise (V): NR  
Power Factor: NR  
Total Harmonic Distortion (THDi): NR  
Frequency (hertz): 60  
Stabilization Time: NR  
Operation Time: NR  
Ambient Temperature (°C): NR  
Test Distance: 24 FT



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### Iso-Footcandle Lines of Horizontal Illumination

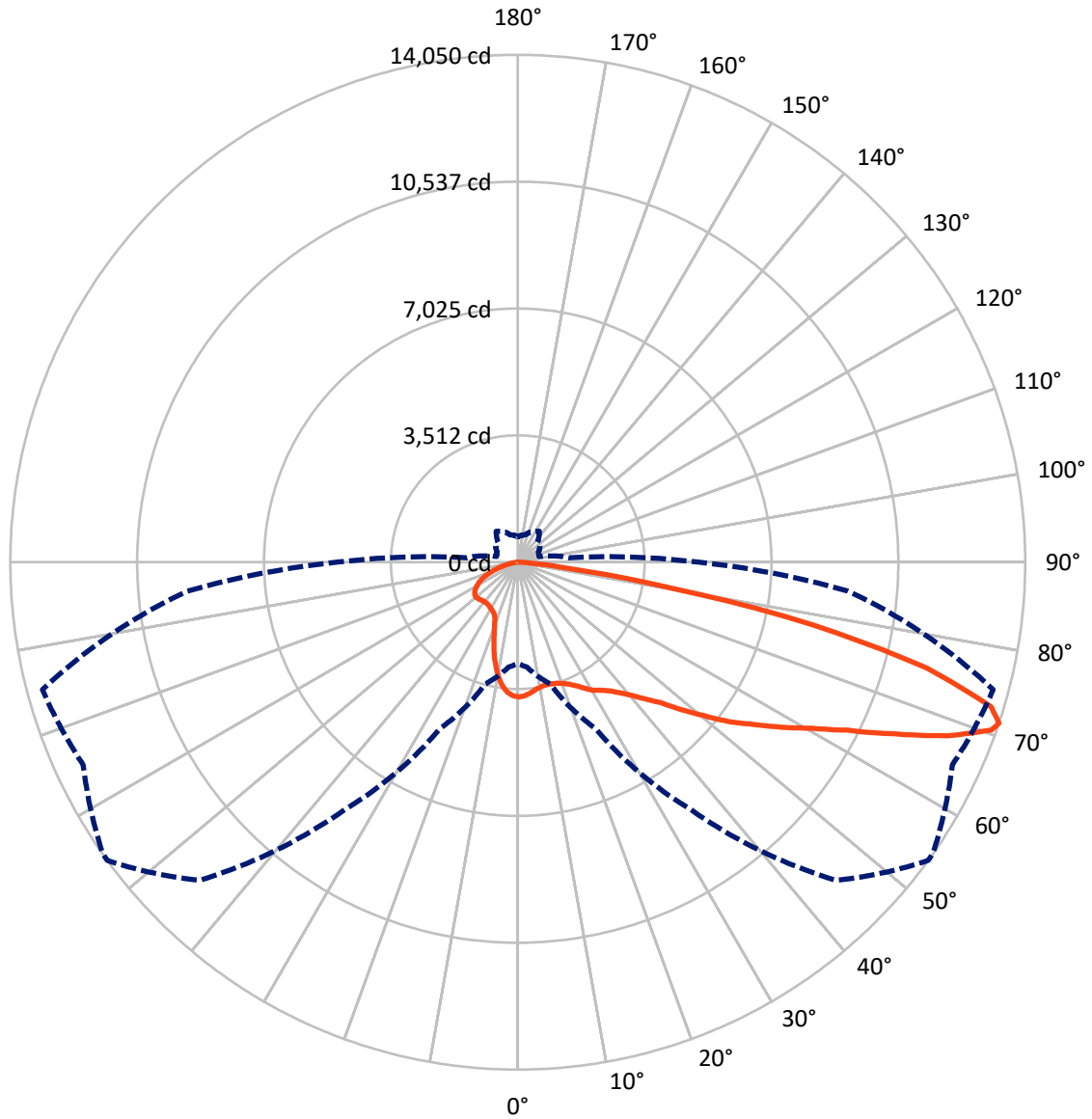
× Max cd  
 - - - 1/2 Max cd



Based on 25 foot mounting height. Maximum calculated value = 6 fc  
 Type IV - Medium - N/A

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### Luminous Intensity Polar Plot



— Vertical Plane Through 54-Deg Lateral    - - - Horizontal Cone Through 71-Deg Vertical

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**FLUX DISTRIBUTION:**

		Downward	Upward	Total
<b>House Side</b>	Lumens	3777.3	0.0	3777.3
	% Fixture	18.1	0.0	18.1
<b>Street Side</b>	Lumens	17144.7	0.0	17144.7
	% Fixture	81.9	0.0	81.9
<b>Total</b>	Lumens	20922.0	0.0	20922.0
	% Fixture	100.0	0.0	100.0

**Coefficient of Utilization**

**ZONAL LUMENS:**

Zone	Lumens	% Fixture
0°-10°	332.6	1.6
10°-20°	878.4	4.2
20°-30°	1462.5	7.0
30°-40°	2162.6	10.3
40°-50°	3046.0	14.6
50°-60°	4078.8	19.5
60°-70°	5141.0	24.6
70°-80°	3511.3	16.8
80°-90°	308.8	1.5
90°-100°	0.0	0.0
100°-110°	0.0	0.0
110°-120°	0.0	0.0
120°-130°	0.0	0.0
130°-140°	0.0	0.0
140°-150°	0.0	0.0
150°-160°	0.0	0.0
160°-170°	0.0	0.0
170°-180°	0.0	0.0
0°-90°	20922.0	100.0
0°-180°	20922.0	100.0



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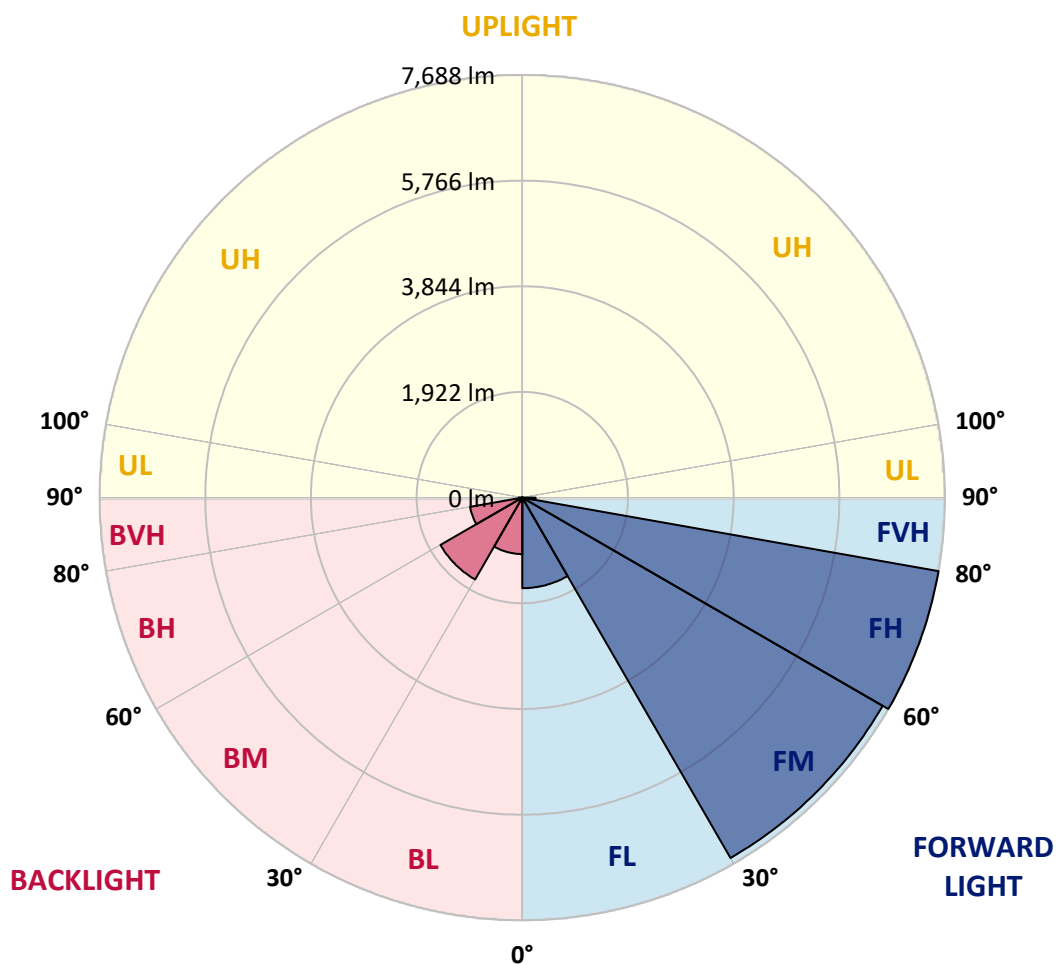
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**LUMINAIRE CLASSIFICATION SYSTEM LUMEN TABLE AND BUG RATING:**

Zone		Lumens	% Fixture	Zone Rating/Lumen Limit		
				B	U	G
FL	(0°-30°)	1646.9	7.9			
FM	(30°-60°)	7568.8	36.2			
FH	(60°-80°)	7687.6	36.7			G4/12000
FVH	(80°-90°)	241.4	1.2			G3/500
BL	(0°-30°)	1026.6	4.9	B3/2500		
BM	(30°-60°)	1718.6	8.2	B2/2500		
BH	(60°-80°)	964.7	4.6	B2/1000		G2/1000
BVH	(80°-90°)	67.4	0.3			G1/100
UL	(90°-100°)	0.0	0.0		U0/0	
UH	(100°-180°)	0.0	0.0		U0/0	

**BUG Rating: B3-U0-G4**

Type IV Medium





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**CANDELA DISTRIBUTION (FULL):**

	0°	5°	15°	25°	35°	45°	54°	55°	65°	75°	85°
0°	3732.8	3732.8	3732.8	3732.8	3732.8	3732.8	3732.8	3732.8	3732.8	3732.8	3732.8
2.5°	3606.2	3623.2	3627.7	3639.0	3662.7	3681.9	3701.2	3698.9	3726.0	3737.3	3747.5
5°	3445.7	3450.3	3467.2	3489.8	3531.6	3584.7	3636.7	3637.9	3704.5	3757.7	3783.7
7.5°	3328.2	3342.9	3354.2	3377.9	3422.0	3479.6	3562.1	3568.9	3687.6	3792.7	3848.1
10°	3251.4	3268.3	3280.7	3310.1	3354.2	3418.6	3507.9	3520.3	3675.2	3848.1	3945.3
12.5°	3181.3	3198.2	3209.5	3248.0	3305.6	3384.7	3485.3	3500.0	3679.7	3912.5	4051.5
15°	3224.2	3237.8	3233.3	3244.6	3283.0	3373.4	3494.3	3509.0	3696.6	3974.6	4156.6
17.5°	3415.2	3426.5	3389.2	3346.3	3328.2	3394.9	3522.6	3538.4	3730.5	4039.1	4264.0
20°	3696.6	3727.1	3645.8	3549.7	3462.7	3471.7	3581.4	3598.3	3778.0	4103.5	4373.6
22.5°	4062.8	4085.4	3985.9	3827.7	3667.2	3584.7	3669.5	3679.7	3849.2	4187.1	4493.4
25°	4493.4	4506.9	4369.1	4165.6	3934.0	3778.0	3790.4	3808.5	3966.7	4282.0	4599.6
27.5°	4911.5	4954.5	4795.1	4546.5	4241.3	3981.4	3956.6	3967.9	4094.4	4335.1	4673.1
30°	5407.6	5404.2	5235.9	4947.7	4556.7	4202.9	4113.6	4111.4	4163.4	4361.1	4726.2
32.5°	5803.2	5849.5	5684.5	5370.3	4917.2	4432.3	4222.1	4217.6	4216.5	4406.3	4805.3
35°	6253.0	6259.7	6108.3	5791.9	5307.1	4720.5	4373.6	4351.0	4325.0	4503.5	4912.6
37.5°	6655.3	6686.9	6547.9	6193.1	5690.2	5020.0	4581.5	4566.8	4487.7	4671.9	5084.4
40°	6969.5	6993.2	6909.6	6571.7	6067.6	5343.2	4846.0	4818.8	4722.8	4947.7	5313.8
42.5°	7072.3	7120.9	7153.7	6987.5	6501.6	5726.3	5171.4	5137.5	5064.1	5365.8	5578.3
45°	7080.2	7157.1	7330.0	7337.9	6937.8	6185.2	5551.2	5527.4	5521.8	5901.5	5950.1
47.5°	7020.3	7098.3	7388.7	7545.8	7326.6	6648.5	6099.3	6062.0	6065.4	6563.8	6367.1
50°	6875.7	6968.3	7320.9	7679.2	7630.6	7129.9	6677.9	6665.5	6735.5	7319.8	6799.9
52.5°	6603.3	6715.2	7250.9	7762.8	7856.6	7544.7	7335.6	7300.6	7478.0	8140.3	7273.5
55°	5849.5	6017.9	6994.3	7809.1	8071.3	7941.4	7927.8	7991.1	8226.2	9035.3	7794.5
57.5°	5456.2	5582.8	6437.2	7817.1	8342.6	8402.5	8619.4	8635.3	9046.6	9985.8	8383.2
60°	5241.5	5353.4	6132.0	7765.1	8721.2	8973.2	9326.9	9383.4	9847.9	11015.3	8993.5
62.5°	5053.9	5150.0	5949.0	7585.4	9148.3	9819.6	10243.4	10270.6	10757.6	12152.2	9595.9
65°	4612.0	4721.7	5580.5	7405.7	9516.8	10877.4	11459.4	11427.8	11726.2	13133.2	9973.3
67.5°	4016.5	4155.5	4892.3	6785.3	9698.7	12033.5	12829.2	12789.6	12682.2	13776.2	10081.8
70°	3255.9	3330.5	4011.9	5712.8	8972.0	12640.4	13910.7	13868.9	13274.4	13861.0	9568.7
71°	2801.6	2918.0	3493.2	5074.2	8367.4	12455.1	14049.7	14038.4	13275.5	13627.0	9182.2
72.5°	2186.8	2258.0	2766.5	3931.7	7111.9	11401.8	13706.1	13749.1	12987.4	12977.2	8385.5
75°	1383.3	1414.9	1735.9	2314.5	3902.3	8074.7	11700.2	11816.6	11531.8	10622.0	6236.0
77.5°	803.5	844.2	1039.7	1364.1	1686.1	4382.6	8371.9	8498.5	8012.6	5848.4	2552.9
80°	467.9	513.1	684.9	792.2	774.1	1626.2	4262.8	4478.7	3469.5	1477.1	716.5
82.5°	259.9	290.4	481.4	482.6	412.5	531.2	1341.5	1403.6	990.0	595.6	292.7
85°	188.7	213.6	310.8	281.4	197.8	228.3	466.7	489.3	400.1	250.9	94.9
87.5°	66.7	94.9	170.6	135.6	54.2	47.5	134.5	109.6	101.7	70.1	21.5
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0



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**CANDELA DISTRIBUTION (continued):**

	90°	95°	105°	115°	125°	135°	145°	155°	165°	175°	180°
0°	3732.8	3732.8	3732.8	3732.8	3732.8	3732.8	3732.8	3732.8	3732.8	3732.8	3732.8
2.5°	3753.1	3755.4	3744.1	3723.8	3703.4	3677.4	3648.0	3625.4	3615.3	3614.1	3613.0
5°	3793.8	3799.5	3756.5	3693.2	3623.2	3537.3	3463.8	3380.2	3358.7	3324.8	3335.0
7.5°	3859.4	3856.0	3771.2	3636.7	3472.9	3290.9	3137.2	3047.9	2955.3	2929.3	2930.4
10°	3953.2	3931.7	3771.2	3521.5	3248.0	2977.9	2763.1	2627.5	2554.1	2493.1	2470.4
12.5°	4052.6	3998.4	3735.1	3359.9	2958.7	2627.5	2397.0	2213.9	2166.4	2116.7	2117.8
15°	4147.5	4057.1	3663.9	3132.7	2646.7	2253.5	2029.7	1920.1	1905.4	1911.0	1909.9
17.5°	4233.4	4099.0	3555.4	2879.6	2282.8	1932.5	1813.8	1821.8	1861.3	1889.6	1893.0
20°	4320.5	4123.8	3393.8	2540.5	1939.3	1738.1	1742.6	1804.8	1864.7	1903.1	1908.8
22.5°	4403.0	4135.1	3203.9	2212.8	1690.7	1655.6	1722.3	1789.0	1847.8	1885.0	1890.7
25°	4457.2	4109.1	2934.9	1870.4	1568.6	1626.2	1696.3	1752.8	1802.5	1841.0	1850.0
27.5°	4471.9	4025.5	2601.5	1593.5	1512.1	1598.0	1662.4	1704.2	1742.6	1778.8	1785.6
30°	4464.0	3902.3	2235.4	1430.7	1479.3	1565.2	1614.9	1645.5	1691.8	1720.0	1725.7
32.5°	4451.6	3758.8	1853.4	1343.7	1452.2	1534.7	1564.1	1591.2	1590.1	1578.8	1586.7
35°	4456.1	3587.0	1543.7	1291.7	1428.5	1512.1	1537.0	1503.1	1405.9	1401.4	1396.8
37.5°	4479.8	3417.5	1318.9	1255.6	1416.0	1508.7	1522.3	1366.3	1280.4	1240.9	1230.7
40°	4540.8	3219.7	1170.8	1228.4	1414.9	1534.7	1455.6	1297.4	1132.4	1055.5	1049.9
42.5°	4622.2	3025.3	1080.4	1211.5	1428.5	1574.3	1428.5	1200.2	1020.5	975.3	968.5
45°	4743.1	2802.7	1030.7	1203.6	1448.8	1589.0	1419.4	1129.0	975.3	939.1	939.1
47.5°	4879.9	2590.2	1003.5	1197.9	1474.8	1578.8	1339.2	1106.4	953.8	958.3	979.8
50°	5015.5	2406.0	983.2	1185.5	1497.4	1573.1	1306.4	1105.3	959.5	1017.1	1055.5
52.5°	5172.6	2276.1	958.3	1165.2	1497.4	1537.0	1296.3	1127.9	975.3	992.2	1009.2
55°	5362.4	2235.4	926.7	1121.1	1470.3	1446.6	1290.6	1160.6	986.6	947.0	953.8
57.5°	5613.3	2300.9	896.2	1065.7	1408.1	1352.8	1288.3	1169.7	960.6	927.8	921.0
60°	5904.9	2430.9	887.1	1009.2	1323.4	1272.5	1274.8	1143.7	924.4	890.5	896.2
62.5°	6109.4	2508.9	881.5	966.3	1230.7	1184.4	1242.0	1112.0	908.6	879.2	884.9
65°	6109.4	2413.9	829.5	900.7	1110.9	1078.1	1202.5	1072.5	888.3	854.4	848.7
67.5°	5877.8	2137.1	750.4	802.4	978.7	957.2	1147.1	1025.0	857.8	831.8	818.2
70°	5274.3	1620.6	651.0	687.1	811.4	830.6	1075.9	960.6	806.9	775.3	754.9
71°	5008.7	1411.5	609.1	628.3	747.0	775.3	1042.0	933.5	784.3	739.1	702.9
72.5°	4496.8	1188.9	545.8	553.8	638.5	689.4	970.8	881.5	741.4	676.9	636.3
75°	3416.4	867.9	439.6	435.1	472.4	547.0	821.6	785.4	649.8	562.8	539.1
77.5°	1475.9	472.4	328.9	332.3	321.0	414.8	646.4	674.7	557.2	457.7	436.2
80°	447.5	272.4	224.9	229.4	214.7	278.0	455.4	528.9	447.5	356.0	326.6
82.5°	229.4	162.7	153.7	151.4	136.7	157.1	275.7	361.6	319.8	222.6	196.6
85°	99.5	87.0	75.7	73.5	64.4	56.5	98.3	180.8	169.5	124.3	118.7
87.5°	24.9	22.6	14.7	13.6	7.9	1.1	0.0	0.0	0.0	0.0	0.0
90°	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

(END OF REPORT)